

Towards a computer-based Organisational Handbook for Information Technology Management

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A critical factor of success within the realization of innovative business strategies is the knowledge about procedural organisation. Consequently the management of business process knowledge has become a central economical challenge. This paper motivates the development of a computer-based organisational handbook to efficiently organize the knowledge of the IT-sector and support IT-based improvements of business processes. As a solution concept serves the idea of the Organisational Memory which can be pragmatically considered as a medium to learn things from the past for the future. In this respect the central functions of the OM to be pointed out are the documentation, integration and utilization of knowledge.

Keywords: Knowledge Management, Organisational Memory, Organising Information Systems, Organisational Impacts of Information Technology, Business Process Improvement

Summary

Business processes have established themselves as an object of organisational measure arrangements. This has already been applied to management concepts of the younger past like Business Process Engineering or Total Quality Management. Current business concepts like Electronic Business, Customer Relationship Management or Supply Chain Management move the business processes more into the centre of organisational efforts.

Companies have invested a lot of money into the improvement of their information technology (IT) infrastructure during the past years. However innovations in the field of information and communication technology do not inevitably lead to an improvement of the business processes. For a long time there could not be observed a connection between IT-investments and business success especially on the administrative and service sector as well as in the not-producing areas of industrial enterprises. The expectations on the IT-investments can quite often not be fulfilled. Managers essentially put down this fact to a lack of methods and tools concerning the IT-management. More decisive today for the often already existing or reasonable to find technology however, is the knowledge of the economic potentials and the organisational impacts on the employment of technology.

Concerning the E-Commerce it is e.g. not enough to make an online-order form accessible for the customer. Not until the processes of the material stream of products have been changed according to the new standards and the new organisational sequence of resources in the “back office” have been reorganised respectively, Electronic Commerce can be successful beyond pure efficiency effects. In this way the knowledge of business processes becomes a critical resource and the management of process knowledge a central challenge of the E-Business sector.

Within the scope of the project “Developing a computer-based Organisational Handbook for IT-based Process Improvements” the objective was to design a computer-based Organisational Handbook which is meant as a help to efficiently organise the knowledge of the IT-sector and support IT-based improvements of business processes. As a solution concept serves the idea of the Organisational Memory (OM) which can be pragmatically considered as a medium to learn things from the past for the future.

The central functions of the OM to be pointed out are the documentation, integration and utilization of knowledge. The prototype of the Organisational Memory System (OMS) which has been developed at the Institute for Information Systems, Saarland University can be understood as a package of basic technologies like modeling, data base and retrieval technologies that are used to support the functions of the OM (see figure 1).

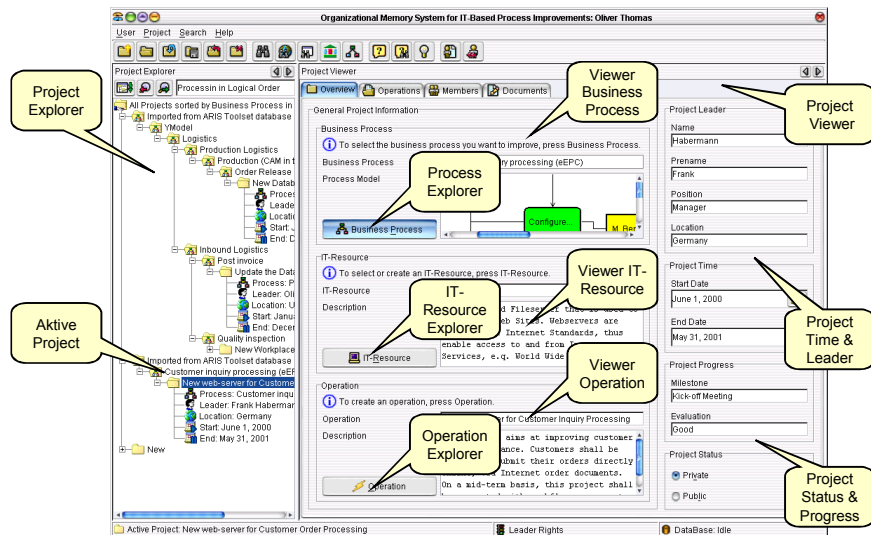


Figure 1: Screenshot of the Organisational Memory System for IT-Based Process Improvements

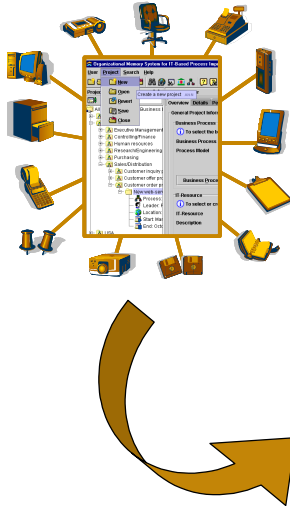
Through this technology relevant knowledge of the field of application, meaning all types of knowledge and contents, are to be collected, integrated and made applicable for future business decisions.

In business reality there are several reasons which demand the recording of organisational measures. Therefore the computer-based Handbook is at first intended to be an efficient tool to solve existing documentation problems of a company (Documentation of Knowledge). To this end a model-, intranet- and multimedia-based approach is followed.

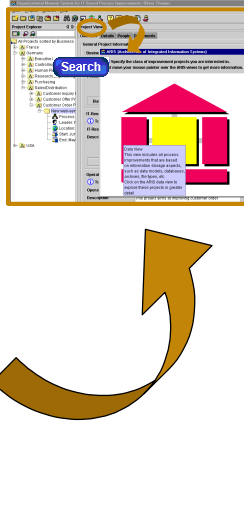
Another function concerns the creation of a network between the documented measures of the “Organisational Knowledge-Cache-Memory”. According to different criteria they can be combined to create an “Organisational Knowledge-Map”. Useful network criteria are e.g. targets, reasons and temporal aspects of process improvements (Integration of Knowledge).

The “Organisational Knowledge-Map” has to be easily searched for and navigated. Search and navigation are essential conditions to make the documented and connected contents of the computer-based Organisational Handbook applicable as a starting point for the development of new measures for process improvement (Utilization of Knowledge). We have come full circle of continuous process improvements (see figure 2).

(1) Knowledge documentation



(3) Knowledge utilization



(2) Knowledge integration

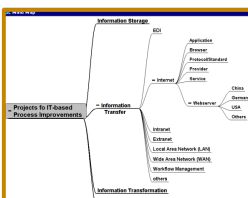


Figure 2: The circle of continuous process improvements